

## ABSTRACT

Expressing a perveance of an electron gun to be determined by a form of the electron gun as  $P\mu$ , a voltage to be impressed on an accelerating electrode  $V_a$  and a beam current  $I_b$ , voltage  $V_a$  which satisfies the following expression,

$$I_b < P\mu \times V_a^{3/2}$$

is impressed on the accelerating electrode.

Further, the electric potential of the accelerating electrode is maintained at the highest level of all electrodes in the electron tube at all times.